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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/682,622   | 09/28/2001  | Daniel Canon         | 9D-RG-19584         | 2283             |
| 23465  | 7590        | 01/04/2005           | EXAMINER            |                  |
| JOHN S. BEULICK<br>C/O ARMSTRONG TEASDALE, LLP<br>ONE METROPOLITAN SQUARE<br>SUITE 2600<br>ST LOUIS, MO 63102-2740 |             |                      | COCKS, JOSIAH C     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3749                |                  |
| DATE MAILED: 01/04/2005  |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/682,622 | <b>Applicant(s)</b><br>CANON, DANIEL |  |
|                              | <b>Examiner</b><br>Josiah Cocks      | <b>Art Unit</b><br>3749              |  |

-- **Th MAILING DATE of this communication appears on th cov r sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 12/21/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, and 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/21/2004 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-7, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art Figure 3 in view of U.S. Patent No. 5,119,802 to Cherry et al. ("Cherry") and U.S. Patent No. 3,551,083 to Michaels ("Michaels").

Applicant's admitted prior art Figure 3 shows an ignition system method for installing an ignition module for a flame burner to an electrical system identical to that described in applicant's claims 1, 3-7, and 9-13 including an AC power source (44), a junction box (72), a phase conductor (74), a neutral conductor (76), the ignition module including first and second

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inputs (80 and 82) and a single output (84), connecting the phase conductor to the first input of the ignition module; connecting the neutral conductor to the second input of the ignition module, connecting a ground conductor (78) between the neutral conductor and a burner (22), and connecting the single output to an igniter (44).

Applicant's prior art Figure 3 does not show the use of an isolation transformer and the details of the transformer structure and location.

Cherry teaches an ignition system having an ignition module (62), and an isolation transformer (64) arranged in series between the ignition module and the phase conductor (L1) and neutral conductor (N) of an AC power supply (see Fig. 6 and col. 4, lines 49-64). The neutral conductor (N) is shown in Figure 6 to be grounded beyond the isolation transformer. The examiner considers that the illustrated grounding of the neutral conductor (N) is connected between the isolation transformer (64) and the ignition electrode (50). This ignition electrode is in turn connected to the burner (42) (see Figs. 4 and 7 and col. 4, lines 36-39). Therefore, this illustrated ground connector is considered to be connected/coupled between the neutral conductor and the burner. However, even if the Fig. 6 illustration of a ground conductor is not properly considered "coupled" to the burner the examiner notes that the burner base (44) is described as being electrically grounded (see col. 4, lines 40-43). It would be inherent that this electrical grounding would be enabled by a ground conductor coupled to the burner as recited in applicant's claims.

Cherry does not show any details of the isolation transformer, however, Michaels is included to shown an ignition system analogous to that of Cherry including an isolation transformer (72). In Michaels, the isolation transformer is shown connected in series between

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AC power supply terminals (66 and 68) and an ignition module (40). The isolation transformer includes a primary winding (76) and a secondary winding (74). A person of ordinary skill in the art would have recognized that the isolation transformer (64) of Cherry would have the same structure as illustrated in Michaels and would thus include primary and secondary windings. The examiner considers that when applicant's prior art Figure 3 is modified to include an isolation transformer as shown in Cherry, this isolation transformer would be arranged between the junction box and ignition module.

Therefore, in regard to claims 1, 3-7, and 9-13, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify applicant's prior art Figure 3 to incorporate the isolation transformer of Cherry as an isolation transformer desirably functions to allow the power supply terminals to be connected to an available source of power such as a 120 volt AC supply while only supplying a smaller and therefore safer voltage to a secondary circuit, such as an ignition circuit of a burner (see Michaels, col. 4, lines 40-49).

#### ***Response to Arguments***

4. Applicant's arguments filed 12/21/2004 have been fully considered but they are not persuasive. Applicant argues that the prior art relied upon by the examiner does not show the claim limitations of the step of connecting a ground conductor between the electrically isolated neutral conductor and a burner or the structure of an electrical system having a ground conductor coupled to a burner. However, for the reasons described above, the examiner considers that these limitations are met in the prior art.

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***Conclusion***

5. This action is made non-final. A THREE (3) MONTH shortened statutory period for reply has been set. Extensions of time may be available under the provisions of 37 CFR


1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (571) 272-4874. The examiner can normally be reached on weekdays from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (571) 272-4877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Any questions on access to the Private PAIR system should be directed to the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

jcc  
December 29, 2004

  
JOSIAH COCKS  
PRIMARY EXAMINER  
ART UNIT 3749